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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,617	04/17/2001	Takahiro Osada	33498	7813

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EXAMINER

CUEVAS, PEDRO J

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 06/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/836,617

Applicant(s)

OSADA ET AL.

Examiner

Pedro J. Cuevas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Rotor Yoke Having A Ring-Like Inductor Forming member For An Electric Machine Rotor.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 7/1 and 7/2 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Laid-Open Utility Model 100976/1988.

The disclosure of 100976/1988 clearly teaches the construction of a rotor for an electric rotary machine comprising:

a rotor yoke (10) having a cylindrical peripheral wall (10a) and a bottom wall (10b) provided integrally with said peripheral wall so as to close one axial end of said peripheral wall and having a boss (13a) provided at a central portion of said bottom wall for mounting a rotary shaft, and

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an inductor forming member (11) having a ring-like portion and inductor magnetic poles (11d) formed on an outer surface of said ring-like portion, said ring-like portion fitted onto an outer surface of said rotor yoke, said inductor forming member being fixed to said rotor yoke by forcing protrusion means (1c) formed on said peripheral wall of said rotor yoke against one and other axial ends of said ring-like portion, respectively.

5. With regards to claim 2, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

6. With regards to claims 7/1 and 7/2, 100976/1988 disclose a permanent magnet (12) is forming a magnetic field system is mounted on an inner surface of said peripheral wall of said rotor yoke.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3 and 7/3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Laid-Open Utility Model 100976/1988 in view of U.S. Patent No. 3,925,694 to Richter et al.

Japanese Laid-Open Utility Model disclose the construction of a rotor for an electric rotary machine as described above.

However, it fails to disclose:

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a peripheral wall of said rotor yoke having a first outer peripheral area of first outside diameter, a second outer peripheral area of outside diameter smaller than said first outer peripheral area and a third outer peripheral area of outside diameter smaller than said second outer peripheral area provided sequentially in order in an axial direction of said rotor yoke, and

the ring-like portion of said inductor forming member fitted onto an outer surface of said second outer peripheral area of said rotor yoke,

the inductor forming member being fixed to said rotor yoke by forcing said first peripheral area protruding from said second outer peripheral area in the outwardly radial direction against one axial end of said ring-like portion of said inductor member and forcing a protrusion formed by deforming an end of said second outer peripheral area on the side of said third outer peripheral area against other axial end of said ring-like portion.

Richter et al. teach the construction of an arrangement for the transmission of control commands from a stationary part to a rotating part of an electric machine having:

a peripheral wall of said rotor yoke having a first outer peripheral area of first outside diameter, a second outer peripheral area of outside diameter smaller than said first outer peripheral area and a third outer peripheral area of outside diameter smaller than said second outer peripheral area provided sequentially in order in an axial direction of said rotor yoke, and

the ring-like portion of said inductor forming member fitted onto an outer surface of said second outer peripheral area of said rotor yoke,

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the inductor forming member being fixed to said rotor yoke by forcing said first peripheral area protruding from said second outer peripheral area in the outwardly radial direction against one axial end of said ring-like portion of said inductor member and forcing a protrusion formed by deforming an end of said second outer peripheral area on the side of said third outer peripheral area against other axial end of said ring-like portion, for the purpose of providing an arrangement for the contactless transmission of control commands from a stationary part to a rotating part of an electric machine in which a ring shaped signal receiving member coupled to shaft of the machine has installed therein a plurality of Hall effect generators.

It would have been obvious to one skilled in the art at the time the invention was made to use the signal receiving member disclosed by Richter et al. on the rotor disclosed by Japanese Laid-Open Utility Model 100976/1988 for the purpose of providing an arrangement for the contactless transmission of control commands from a stationary part to a rotating part of an electric machine in which a ring shaped signal receiving member coupled to shaft of the machine has installed therein a plurality of Hall effect generators.

9. Claims 4-6 and 7/4-7/6 rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Laid-Open Utility Model 100976/1988 in view of U.S. Patent No. 3,925,694 to Richter et al. as applied to claims 3 and 7/3 above, further in view of JP 56038964 A to Nakano et al.

Japanese Laid-Open Utility Model in view of Richter et al. disclose the construction of a rotor for an electric rotary machine as described above.

However, it fails to disclose:

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the peripheral wall of said rotor yoke on an outer surface thereof having a plural of protrusions including a first protrusion portion extending in an axial direction of said rotor yoke and a second protrusion portion extending in a circumferential direction of said rotor yoke at one end of said first protrusion portion,

the inductor forming member on an inner surface of said ring-like portion having recesses corresponding to said first protrusion portions of said plural of said protrusions, respectively so that said first protrusion portions are engaged with said corresponding recesses,

the inductor forming member being fixed to said rotor yoke by forcing said second protrusion portion of each of said protrusions against one axial end of said ring-like portion of said inductor member and by forcing a projection formed by raising other end of said first protrusion portion against other axial end of said ring-like portion.

Nakano et al. teach the construction of a brush for a DC motor wherein:

a peripheral wall of said rotor yoke on an outer surface thereof having a plural of protrusions including a first protrusion portion extending in an axial direction of said rotor yoke and a second protrusion portion extending in a circumferential direction of said rotor yoke at one end of said first protrusion portion,

the inductor forming member on an inner surface of said ring-like portion having recesses corresponding to said first protrusion portions of said plural of said protrusions, respectively so that said first protrusion portions are engaged with said corresponding recesses,

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the inductor forming member being fixed to said rotor yoke by forcing said second protrusion portion of each of said protrusions against one axial end of said ring-like portion of said inductor member and by forcing a projection formed by raising other end of said first protrusion portion against other axial end of said ring-like portion, for the purpose of interposing a rectifying diode between the base of a brush leaf spring and a terminal metal, and inserting the interposed portion between projecting pieces provided on a retaining piece.

It would have been obvious to one skilled in the art at the time the invention was made to use the retainers disclosed by Nakano et al. on the rotor disclosed by Japanese Laid-Open Utility Model 100976/1988 for the purpose of interposing a rectifying diode between the base of a brush leaf spring and a terminal metal, and inserting the interposed portion between projecting pieces provided on a retaining piece.

10. With regards to claim 5, Richter et al. disclose the ring-shaped signal receiving member (S) having T or L shaped profiles as stated in column 2, lines 27-29.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

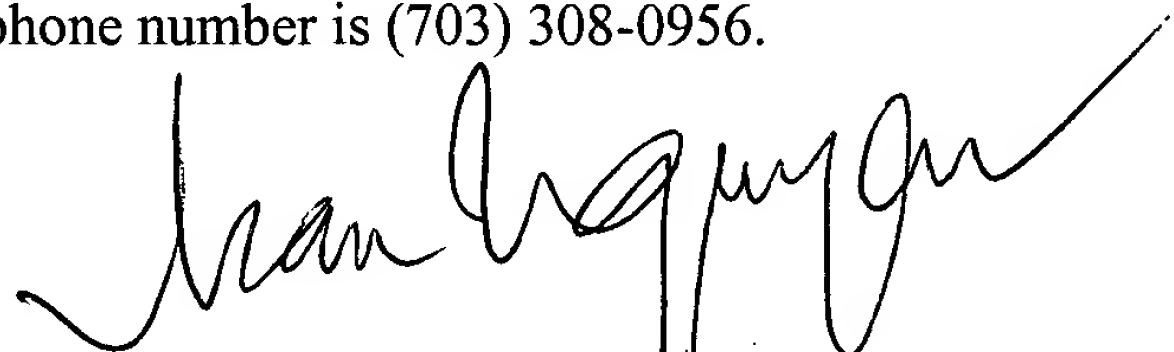
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (703) 308-1371. The fax phone numbers for

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the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
June 24, 2002



TRAN
PRIMARY EXAMINER

TRAN NGUYEN
PRIMARY EXAMINER